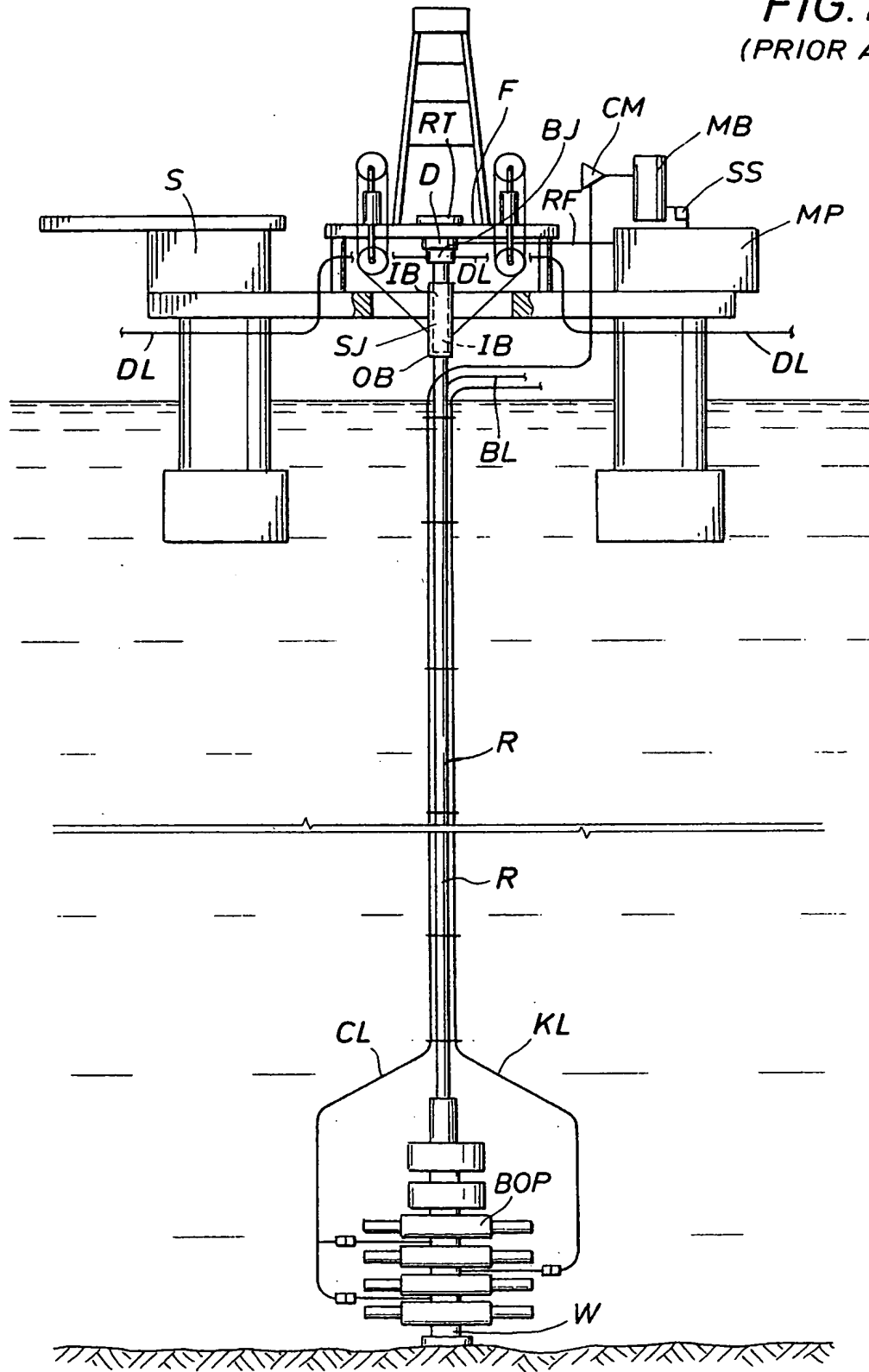


1/11

FIG. 1
(PRIOR ART)



TITLE:

METHOD AND SYSTEM FOR RETURN OF DRILLING FLUID FROM A
SEALED MARINE RISER TO A FLOATING DRILLING RIG WHILE
DRILLING

INVENTORS:

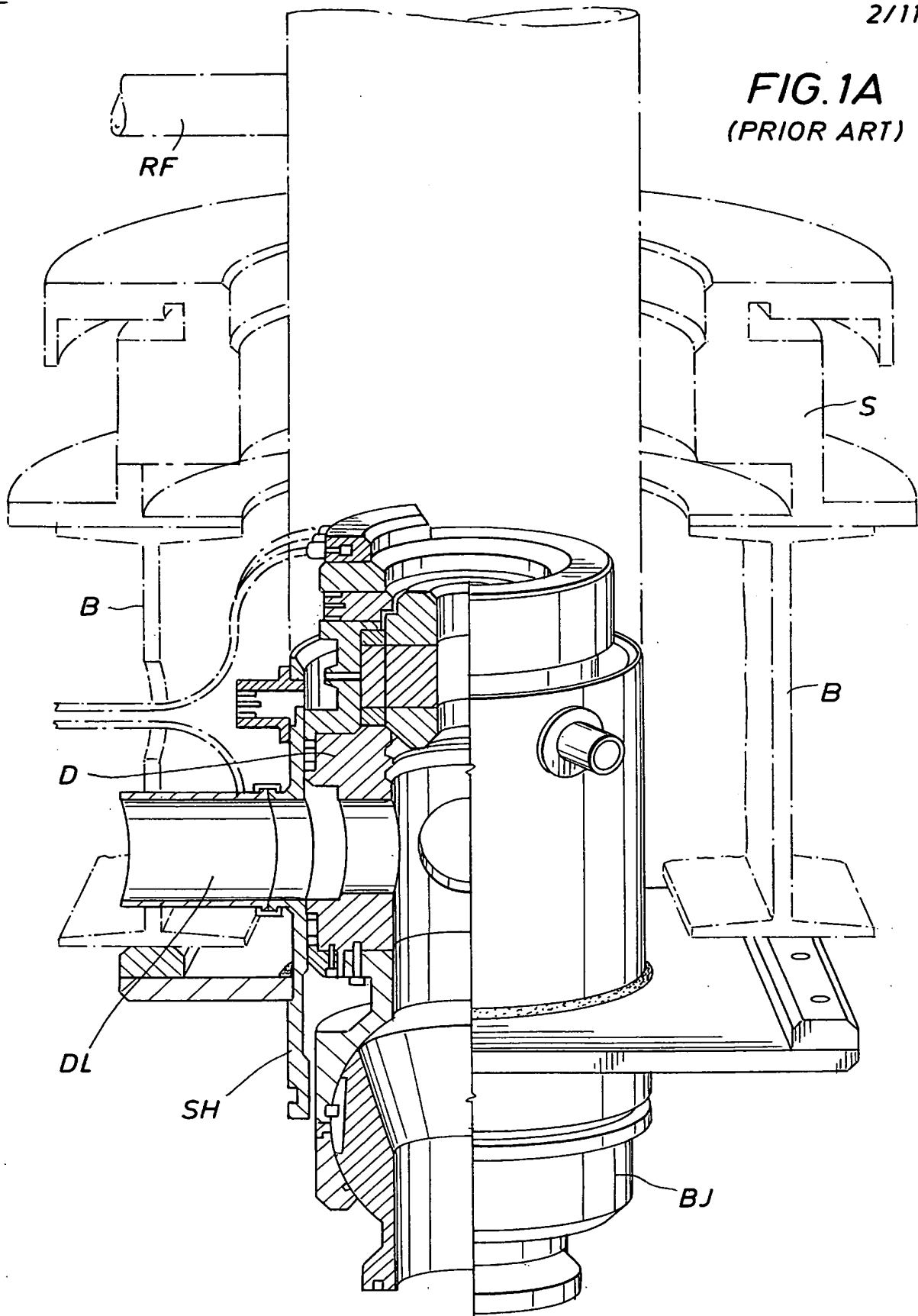
Darryl A. Boutgoyne and Don M. Hannegan

ATTY DKT NO.:

H055010.0035US1

2/11

FIG. 1A
(PRIOR ART)



METHOD AND SYSTEM FOR RETURN OF DRILLING FLUID FROM A SEALED MARINE RISER TO A FLOATING DRILLING RIG WHILE DRILLING

3/11

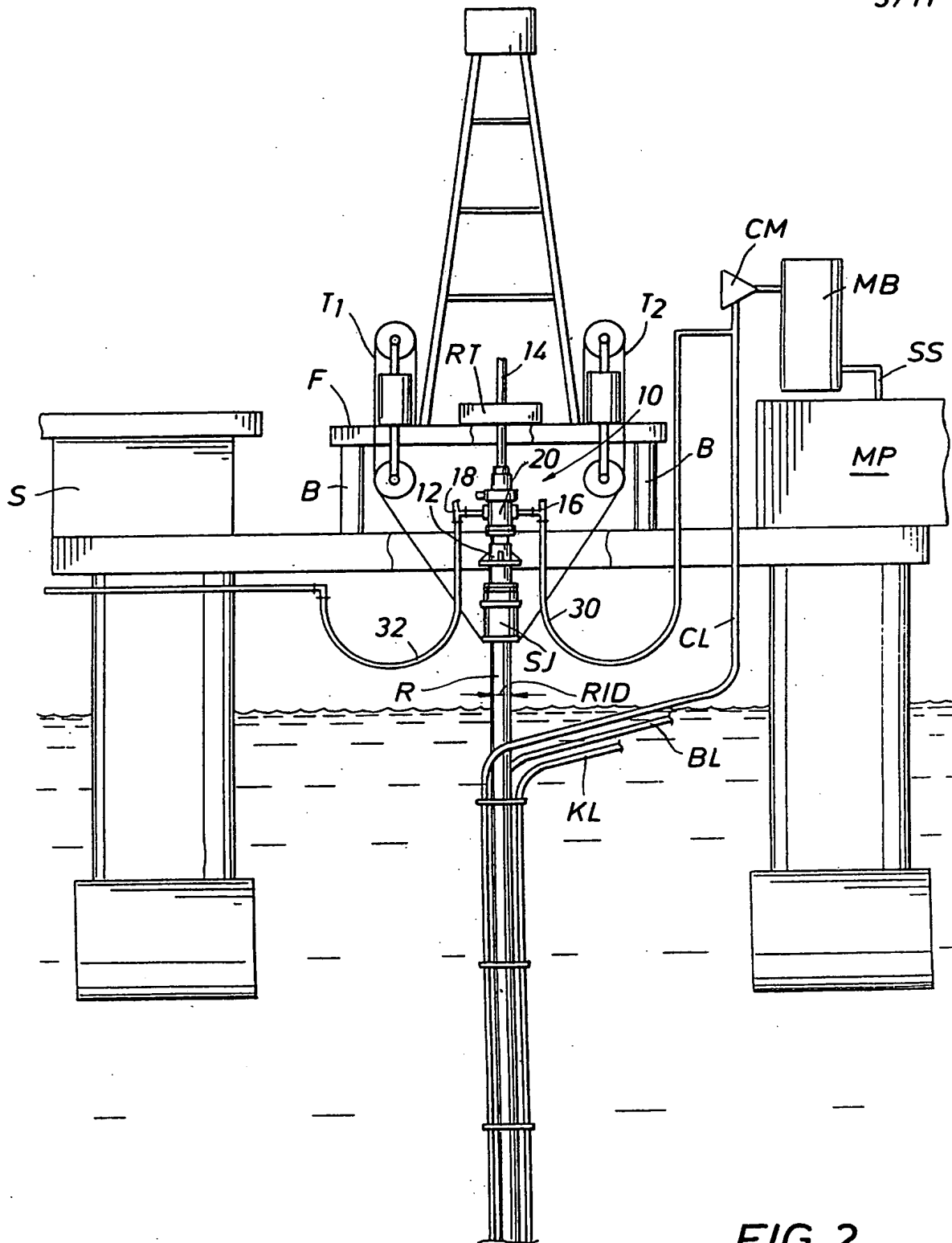
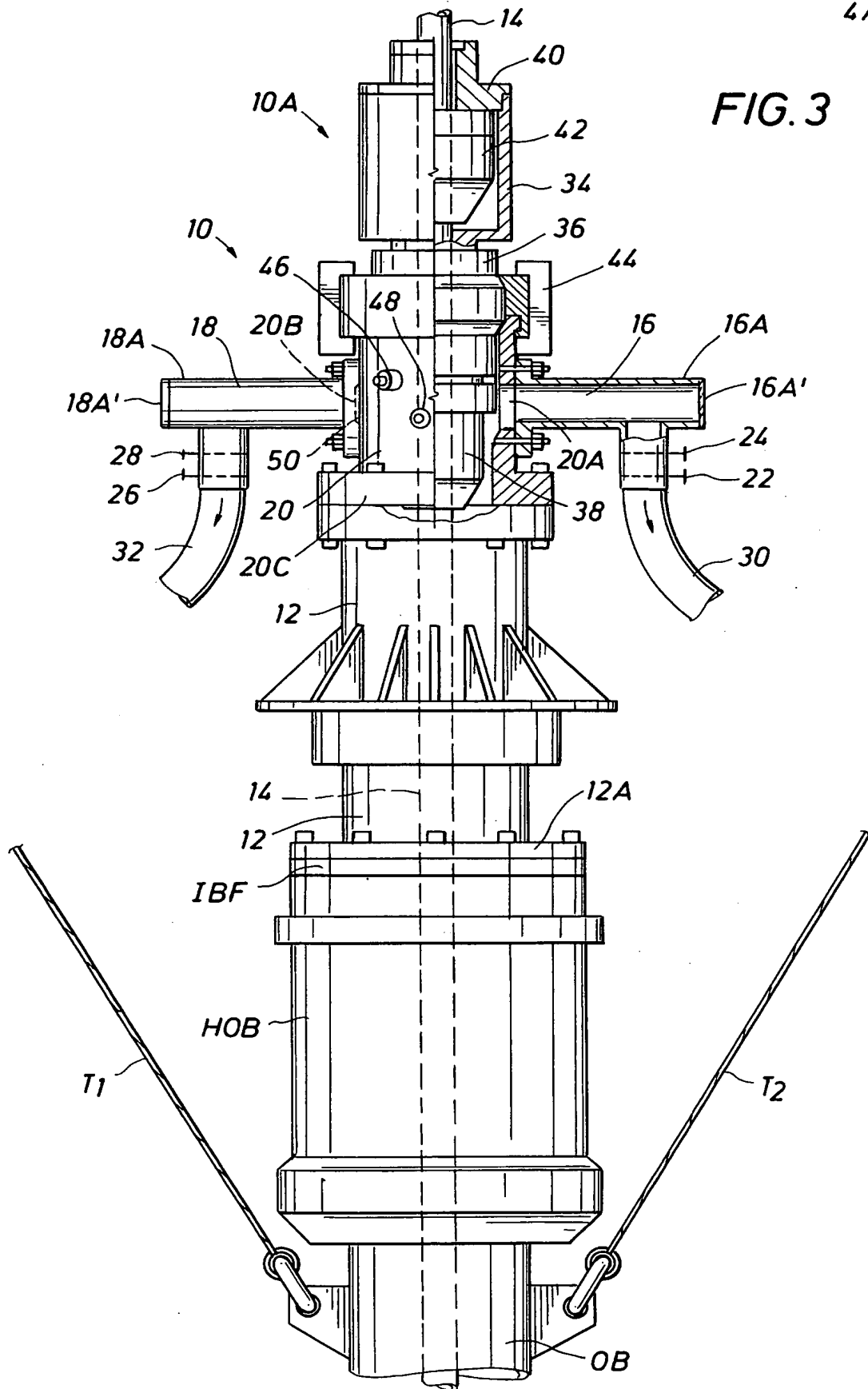


FIG. 2

4/11

FIG. 3



TITLE:

METHOD AND SYSTEM FOR RETURN OF DRILLING FLUID FROM A
SEALED MARINE RISER TO A FLOATING DRILLING RIG WHILE
DRILLING

INVENTORS:

Darryl A. Boutgoyne and Don M. Hannegan

ATTY DKT NO.:

H055010.0035US1

+

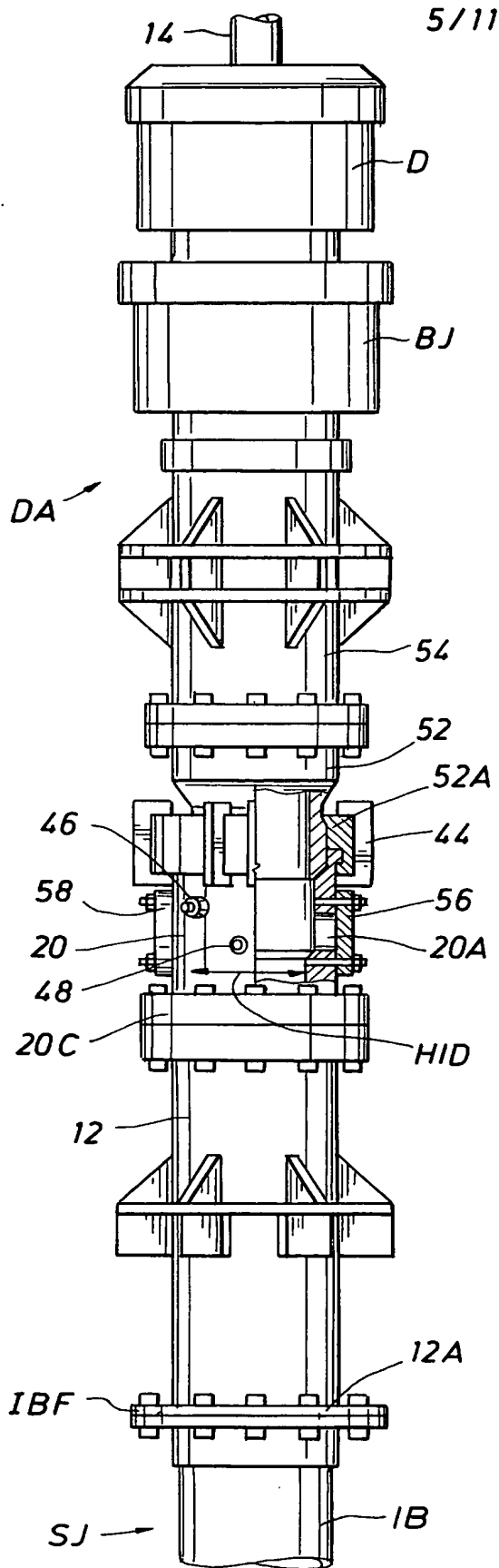


FIG. 4

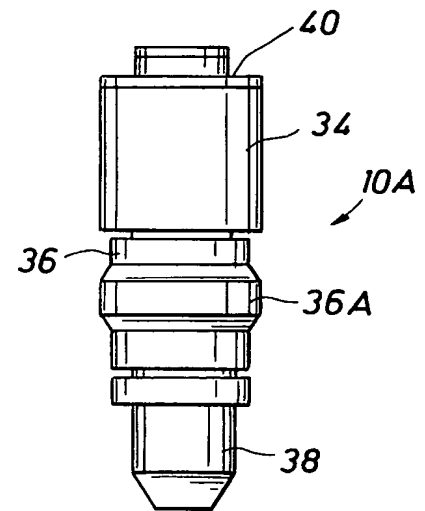


FIG. 5

+

TITLE:

METHOD AND SYSTEM FOR RETURN OF DRILLING FLUID FROM A
SEALED MARINE RISER TO A FLOATING DRILLING RIG WHILE
DRILLING

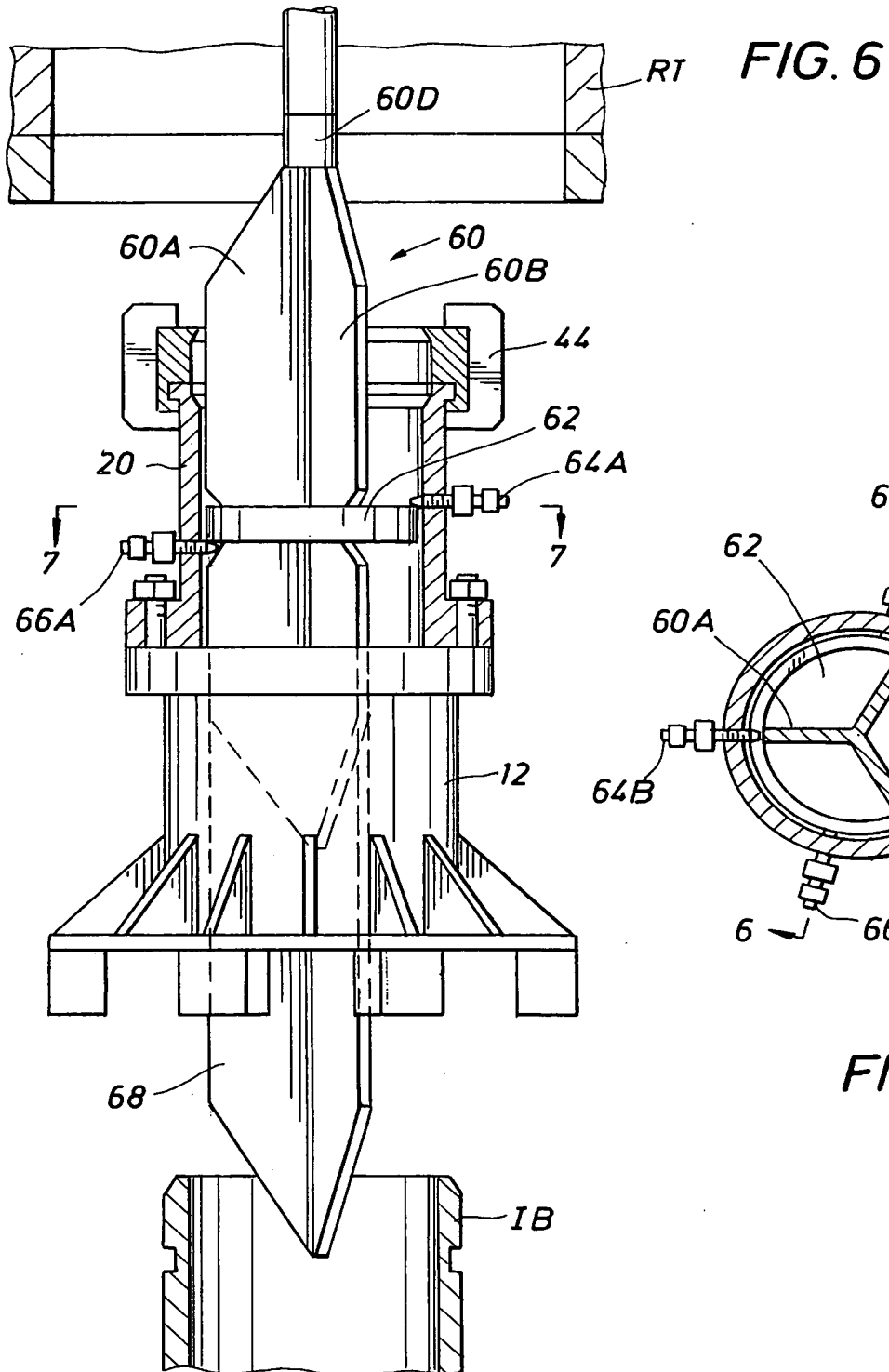
INVENTORS:

Darryl A. Boutgoyne and Don M. Hannegan

ATTY DKT NO.:

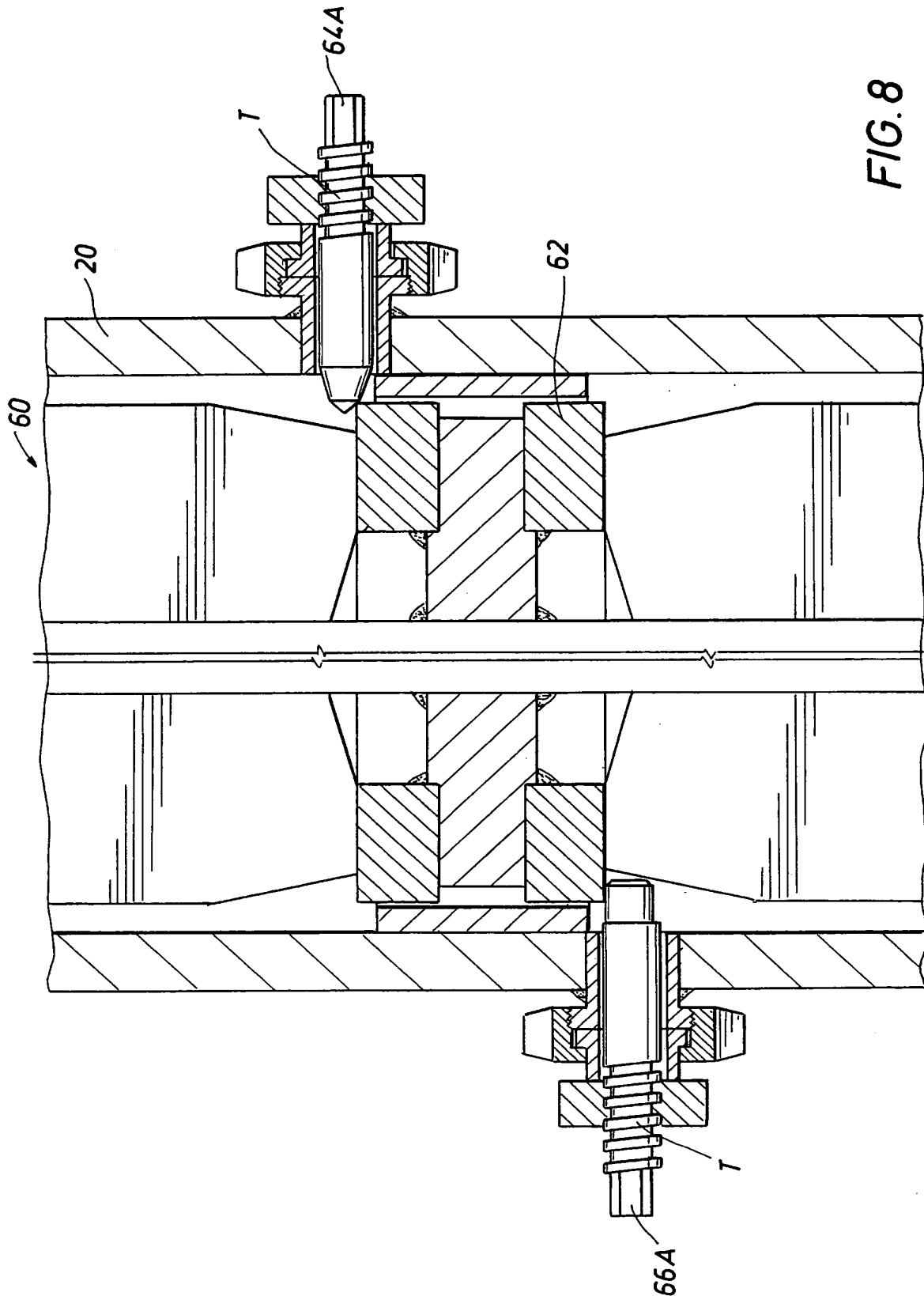
H055010.0035US1

6/11



+

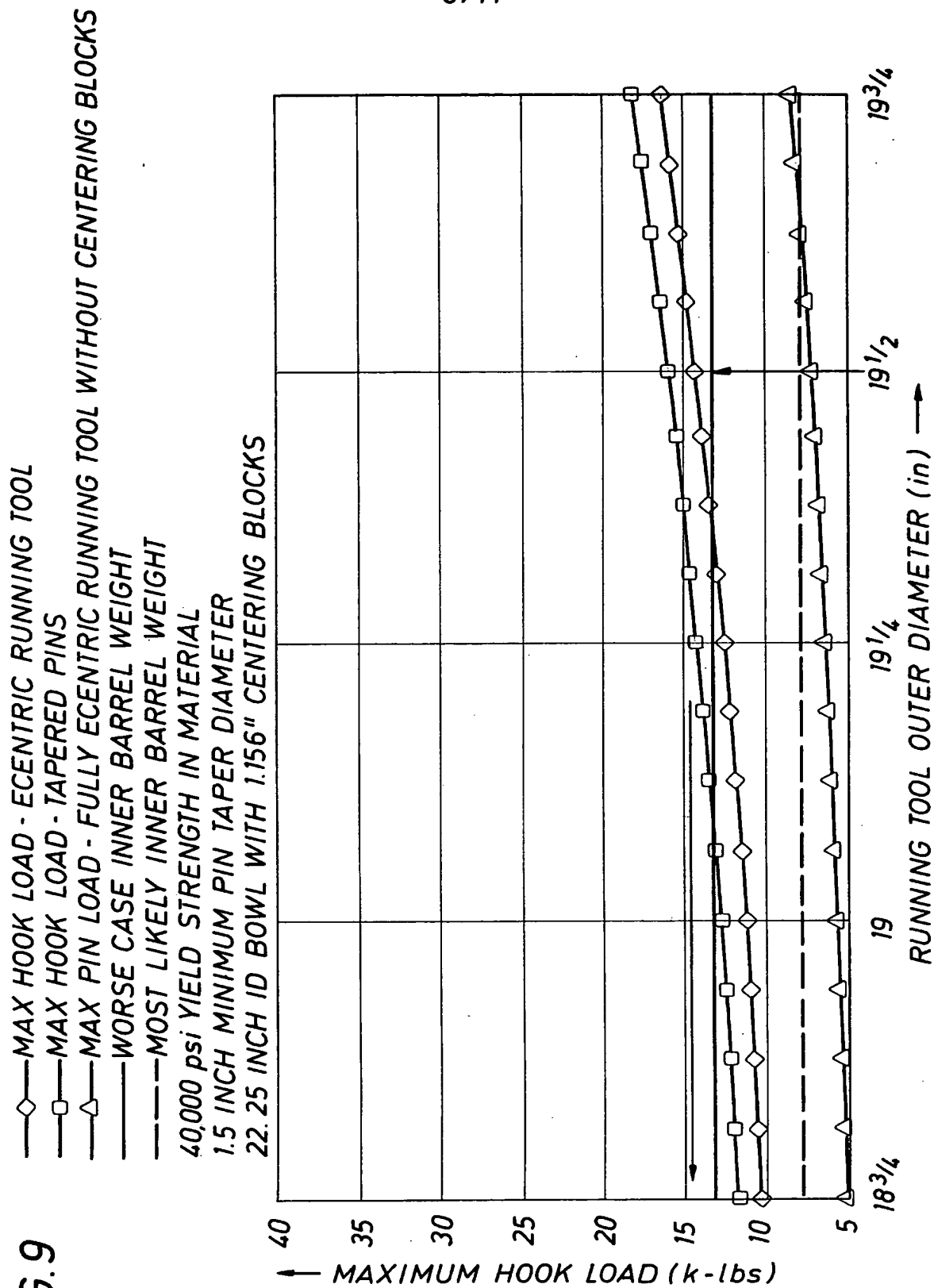
7/11



+

8/11

FIG. 9



TITLE:

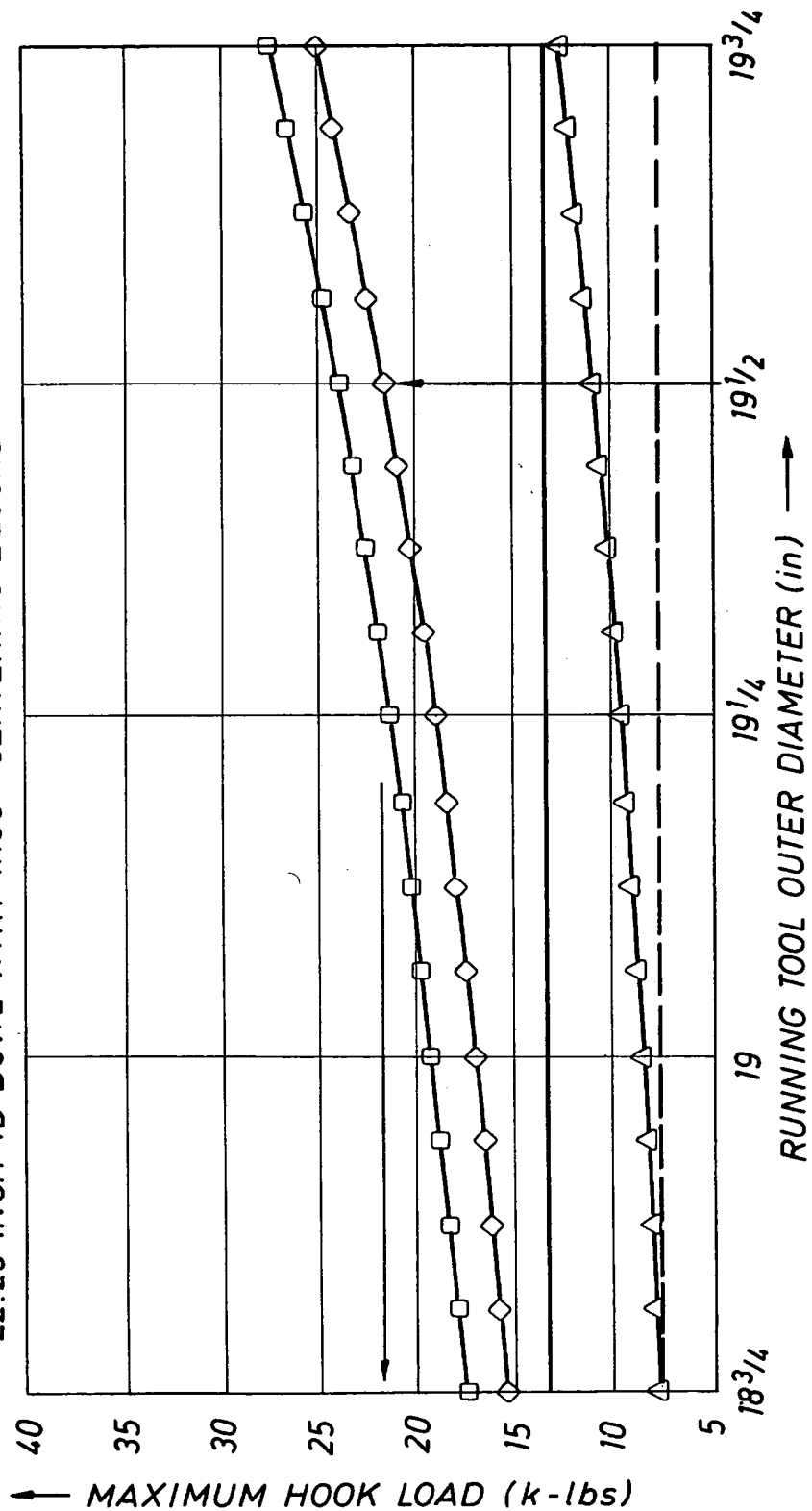
METHOD AND SYSTEM FOR RETURN OF DRILLING FLUID FROM A
SEALED MARINE RISER TO A FLOATING DRILLING RIG WHILE
DRILLING

INVENTORS:
ATTY DKT NO.:

Darryl A. Boutgoyne and Don M. Hannegan
H055010.0035US1

FIG. 10

—◇— MAX HOOK LOAD - ECENTRIC RUNNING TOOL
 —□— MAX HOOK LOAD - TAPERED PINS
 —△— MAX PIN LOAD - FULLY ECENTRIC RUNNING TOOL WITHOUT CENTERING BLOCKS
 ——— WORSE CASE INNER BARREL WEIGHT
 - - - MOST LIKELY INNER BARREL WEIGHT
 60,000 psi YIELD STRENGTH IN MATERIAL
 1.5 INCH MINIMUM PIN TAPER DIAMETER
 22.25 INCH ID BOWL WITH 1.156" CENTERING BLOCKS



TITLE:

METHOD AND SYSTEM FOR RETURN OF DRILLING FLUID FROM A
SEALED MARINE RISER TO A FLOATING DRILLING RIG WHILE
DRILLING

INVENTORS:

Darryl A. Boutgoyne and Don M. Hannegan

ATTY DKT NO.:

H055010.0035US1

FIG. 11

16 ppg MUD, 30 cp vis
10 lb / 100 ft² YIELD

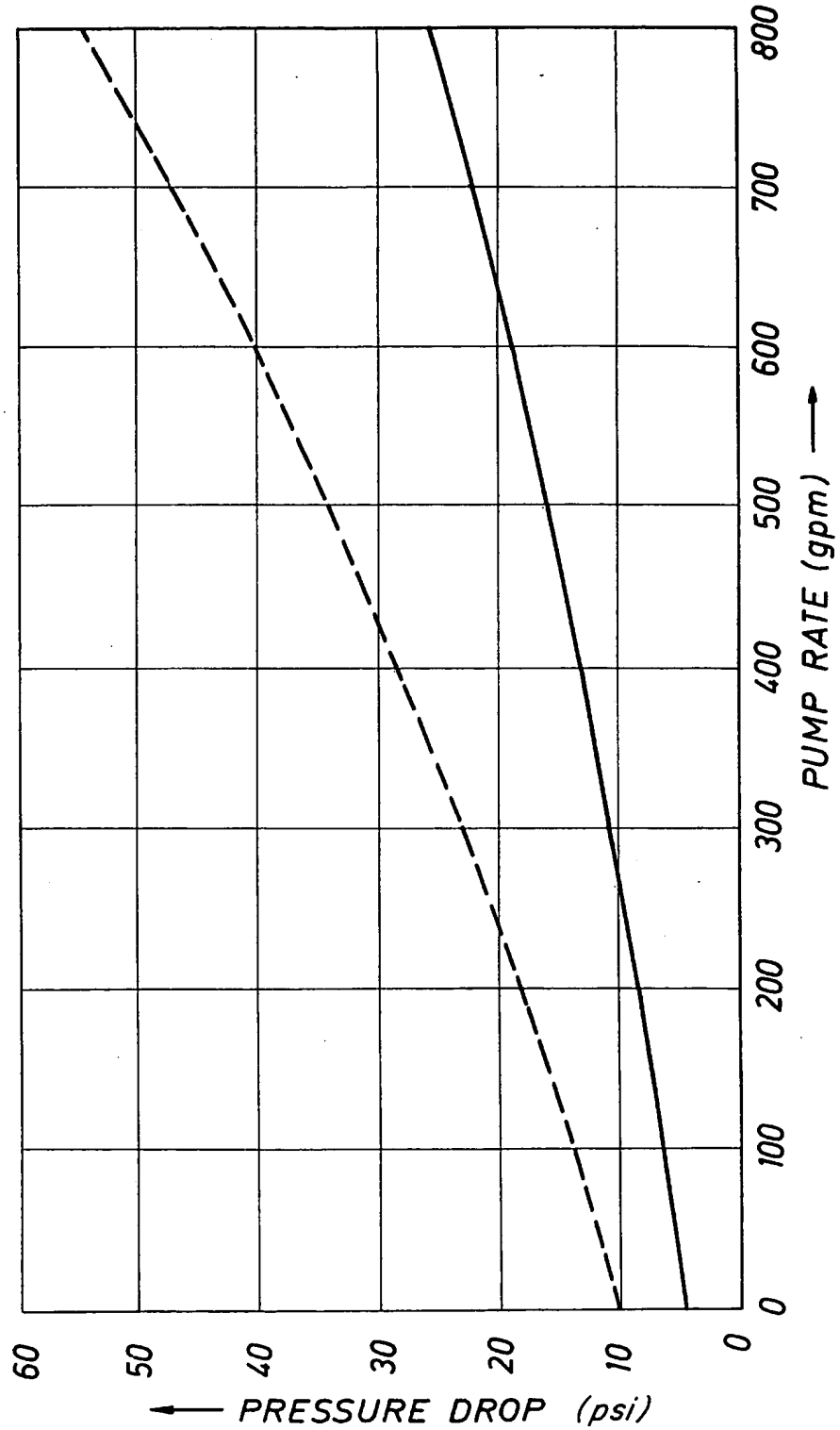
500 gpm BOOSTER PUMP RATE

291 fpm MAX AV IN 9.6 INCH HOLE

85 fpm MAX AV IN 20 INCH RISER

(800 gpm PUMP RATE + 500 gpm BOOSTER PUMP RATE THROUGH HOSE)

—— 30ft LONG HOSE - - - - 64ft LONG HOSE

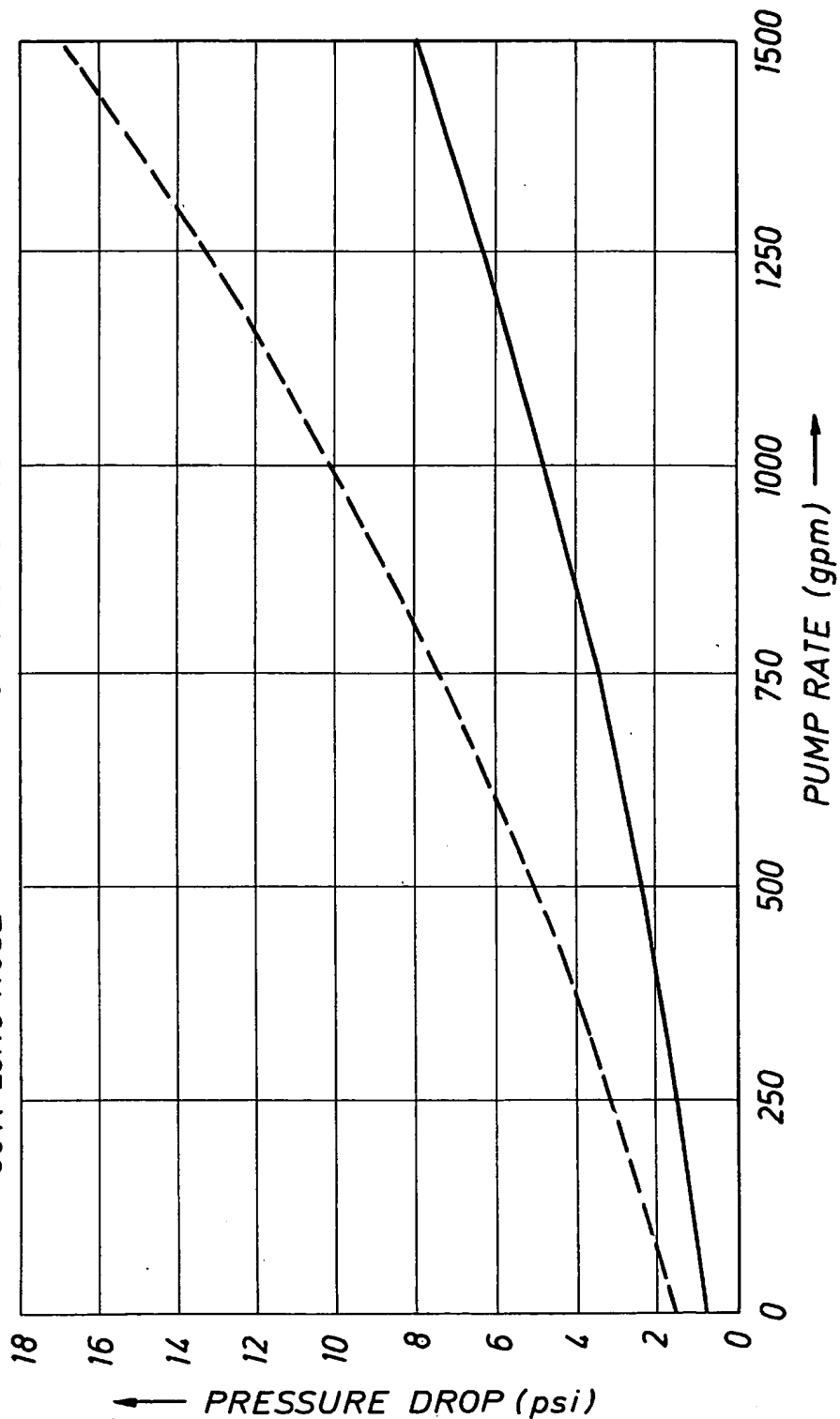


+

11/11

FIG. 12

16 ppg MUD, 30 cp vis
 10 lb/100 ft² YIELD
 500 gpm BOOSTER PUMP RATE
 125 fpm MAX AV IN 18 INCH HOLE
 131 fpm MAX AV IN 20 INCH RISER
 (1500 gpm PUMP RATE + 500 gpm BOOSTER PUMP RATE THROUGH HOSE)
 — 30 ft LONG HOSE - - - - 64 ft LONG HOSE



+